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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,127	09/30/2003	Ram Kishan Singh B	134390 (MHM 14929US01)	5701
23446	7590	09/13/2006	EXAMINER	
MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			ARTMAN, THOMAS R	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/675,127

Applicant(s)

SINGH B ET AL.

Examiner

Thomas R. Artman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato (US 5,105,455).

Regarding claim 1, Kato discloses a system (Figs.1-3), including:

- a) an imaging device (Fig.1),
- b) a patient positioning area in close proximity to the imaging device, where the imaging device is configured to move within the patient positioning area (Fig.1), and
- c) a protective bumper 6 attached to the imaging device (Fig.2), where the bumper conforms to a shape of a portion of the imaging device (Fig.3).

Regarding claim 12, Kato discloses a device (Figs.1-3), including:

- a) a main body 5 extending from a support structure 1b, the main body having a distal end (bottom of item 5), a lower surface (bottom of item 5), and a lateral surface (side of item 5);
- b) an L-shaped cushioned bumper (Fig.3; col.2, line 29) having a lower member integrally formed with an upper member (two extremities of the L shape), where the bumper is attached to a portion of the distal end of the main body (Figs.2-3), where the bumper conforms to

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the shape of the distal end of the main body where the lower member extends over the lower surface of the distal end, and the upper member extends over a lateral surface of the distal end (bottom and right sides of Fig.3, respectively).

With respect to claim 2, Kato further discloses that the protective bumper is an L-shaped cushioned bumper (Fig.3; col.2, line 29).

With respect to claim 3, Kato further discloses that the protective bumper is fluid filled (air).

With respect to claims 4 and 13, Kato further discloses that the imaging device has an x-ray source 4 and an x-ray detector 5.

With respect to claim 5, Kato further discloses that the medical imaging system is a fluoroscopy imaging system.

With respect to claims 6 and 14, Kato further discloses that the imaging device is positioned on a C-arm 1 and is configured to rotate around a patient positioned in the patient positioning area (col.2, lines 18-34).

With respect to claim 7, Kato further discloses that the imaging device has a main body 5 having a distal end having a lower surface, where the protective bumper has a first lip adjacent to

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the main body (upper part near label "5" in Fig.3) and a second lip extending laterally across the lower surface (bottom and left part of Fig.3), where the first and second lips define a unitary structure (Fig.3).

With respect to claim 8, Kato further discloses that a detection system 13 is in contact with the fluid, where the detection system comprises a pressure sensing device 13 (col.3, lines 31-49).

With respect to claim 9, Kato further discloses that the detection system is in a housing 6.

With respect to claim 10, Kato further discloses that the detection system has a plurality of pressure sensing devices 13 in contact with the fluid.

With respect to claim 11, Kato further discloses that the detection system is electrically connected to a processing unit (col.3, lines 43-49).

With respect to claim 15, Kato further discloses that the bumper is fluid filled (air), further having a detection system 13 in contact with the fluid, the detection system further having a pressure sensing device (Fig.3; col.3, lines 31-49).

With respect to claim 16, Kato further discloses that there are a plurality of pressure sensing devices 13 in contact with the fluid.

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With respect to claim 17, Kato further discloses:

c) a mounting frame 11 located at the distal end of the main body, where the frame has upper and lower mounting bases (vertical and horizontal sections of item 11, respectively, Fig.3),

d) a first flange attached to the upper base where at least a portion of the upper member is attached to the first flange (upper portion of item 12 sandwiched between upper base and flange of item 11; Fig.3), and

e) a second flange attached to the lower base where at least a portion of the lower member is attached to the second flange (lower portion of item 12 sandwiched between lower base and flange of item 11; Fig.3).

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Gray (US 5,056,365).

Regarding claim 18, Gray discloses a device (Figs. 1, 2 and 10), including:

a) a main body 14 extending from a support structure 20, where

b) a first cushioned bumper 30 positioned around at least a portion of a lateral surface of the main body (Fig.2), and

c) a second cushioned bumper 32 ("cushioned" via springs 44, 46) positioned over at least a portion of a lower surface of the main body (Fig.2).

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Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi (US 4,969,170).

Regarding claim 18, Kikuchi discloses a device (Figs. 1 and 2a), including:

- a) a main body 53 extending from a support structure 52, where
- b) a first cushioned bumper 60 positioned around at least a portion of a lateral surface of the main body, and
- c) a second cushioned bumper 61 positioned over at least a portion of a lower surface of the main body.

Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Travanty (US 4,987,583).

Regarding claim 18, Travanty discloses a device (Fig. 1), including:

- a) a main body 14 extending from a support structure 32, where
- b) a first cushioned bumper 46 positioned around at least a portion of a lateral surface of the main body, and
- c) a second cushioned bumper 49 positioned over at least a portion of a lower surface of the main body.

With respect to claim 20, Travanty discloses that both bumpers are fluid filled (trapped air), and further discloses a housing 46 mounted on the imaging device, and a detection system contained within the housing, the detection system has a pressure sensing device (electrical switch) in contact with the fluid.

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 6-8 and 12-15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 9 and 13 of copending Application No. 10/963,329. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application recite a "bumper" that is "cushioned". The claims of the conflicting application describe a "damper" that is made of an "elastic material". These are obvious variants, where an elastic material provides "cushion" upon impact with another object. Furthermore, the differences between "bumper" and "damper" are obvious variants, particularly when the additional limitations between the two applications that define these structures are the same: the "damper" and the "bumper" are both claimed to be filled with fluid and have a pressure sensor. Further still, both the "bumper" and



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the "damper" are intended for the same function: detect contact with another object in order to shut down the imaging system support motors in order to prevent damage.

In addition, the claims of the instant application, specifically claims 2, 7 and 12, describe an L-shaped bumper that conforms to the shape of the imaging device. The bumper has a first "lip" (or "member") that is adjacent to the main body of the imaging device, and a second "lip" (or "member") extending laterally across the lower surface of the imaging device, thus defining the L shape. Claims 1, 5 and 9 of the conflicting application describe an L-shaped damper that conforms to the shape of the imaging device, where there is an inner surface that is concave and an outer surface that is convex, thus defining the L shape.

Although the description claimed in the instant application may not be identical in scope to that of the conflicting claims, it is clear that both descriptions can, and in fact do, describe a common structure: an L-shaped device that conforms to the shape of the imaging system. The simplest, most direct evidence of this is the fact that the same prior art, Kato, anticipates the L-shaped structures as claimed in both applications (see above rejection and the rejection in the 10/963,329 file).

Therefore, the claims are commensurate in scope, in that the scopes of the claims in the two applications significantly overlap.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

*Allowable Subject Matter*

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither teaches nor reasonably suggests the additional limitation of placing a third cushioned bumper between the first and second cushioned bumpers as required by claim 19. Travanty discloses many bumpers placed on different portions of an imaging system; however, Travanty neither teaches nor reasonably suggests the placement of a third bumper between the other two bumpers, as the two bumpers are defined in parent claim 18.

*Conclusion*

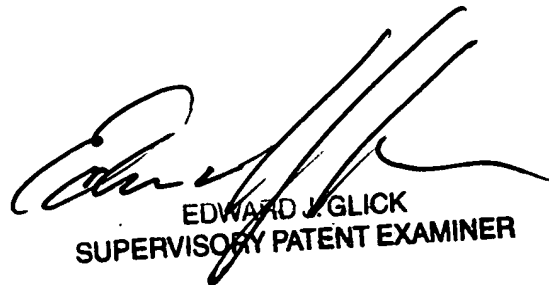
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Grasser (US 4,811,725) teaches a fluid-filled pressure sensing system for collision detection between a patient and an imaging device. Gray (US 5,097,495) teaches a fluid-filled pressure sensing system for collision detection between a patient and an imaging device. Klotz (US 5,651,044) teaches a cushioned capacitive sensing system for collision detection between a patient and an imaging device. Hattori (US 6,561,301 B1) teaches a collision sensor system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Artman whose telephone number is (571) 272-2485. The examiner can normally be reached on 9am - 5:30pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thomas R. Artman  
Patent Examiner



EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER